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TITLE OF INVENTION

Adaptable Front End Bucket

CROSS REFERENCES TO RELATED APPLICATIONS

Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH

Not Applicable

REFERENCE TO APPENDIX

Not Applicable

BACKGROUND OF THE INVENTION

A. FIELD OF THE INVENTION

This is a way to improve a tractor blade by converting it into a bucket as well as a blade using this device.

B. PRIOR ART

Tractors are typically used to push debris and other items. They do not, however, serve as buckets to lift and eventually move material. The present device is an attachment to convert a tractor blade into a bucket temporarily.

The prior art in this area involves bucket attachments for tractor blades, which involve mechanical levers and other similar devices. The prior art generally describe devices, which are permanently attached to the tractor blade.

Representative examples of this prior art include Long, patent number 4,890,400, Funk, patent number 3,559,314, and Deyo patent number D425,527.

One of the disadvantages of the prior art is that the items

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1 must be permanently attached to the tractor blade. The current
2 device is lightweight and portable enough to be easily attached and
3 reattached at will. Additionally, no major alterations need to be
4 made to the tractor blade as this device is not meant to be a
5 permanent attachment.
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3 **BRIEF SUMMARY OF THE INVENTION**

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5 This is a device, which has a flat base member, two side
6 panels and a means to secure the device to a tractor. Pieces of
7 angle rod are welded or attached to the side panels to provide
8 stability.

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10 The base member is a flat, solid piece of metal. The base
11 member will be positioned generally perpendicular to the lower edge
12 of the blade of the tractor. When the device is installed, the
13 base member and the tractor blade form a scoop.

14
15 One end of a side panel is welded or connected to the base
16 member and the other end of the side panel is welded or connected
17 to a top servicing rod.

18
19 The side panels extend in a vertical direction from the base
20 member. The side panels are parallel to each other and extend the
21 height of the tractor blade. A top securing rod is inserted over
22 the top surface of the tractor blade and serves to secure its
23 position along the top edge of the tractor blade. Most tractor
24 blades are made such that the top edge forms a lip against which
25 the top securing rod would fit. If the top edge does not have a
26 lip one can be installed to accommodate the top securing rod of the
27 device.

28
29 On the bottom of the base member holes are placed at the
30 bottom of the side panels to accommodate a bottom securing rod,
31 which extends slightly more than the length of the tractor blade.
32 Cotter pins on both ends of the bottom securing rod would

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1 | secure the bottom securing rod in place.

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3 | In another embodiment the device is secured with pins, which
4 |
5 | maintain the position of the device on the bottom.

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7 | Pieces of angle iron, which are on the inside surface of the
8 | side panels keep the device in position while the device is in use
9 |
10 | and prevent the device from tilting.

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12 |
13 | The device is designed to be portable and readily removed from
14 | the tractor blade. It is contemplated that a variety of metals may
15 | be used to construct the device. However, steel is probably
16 | preferred for durability reasons.

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BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of the device attached to the front of a tractor blade and the outline of a tractor.

Figure 2 is a front view of the device with the tractor not shown.

Figure 3 is a perspective view of the device with the tractor not shown.

Figure 4 is a cross section of the device as indicated by the 4-4 section on Figure 1.

Figure 5 is a perspective view of the device using pins to secure the device.

1 **DETAILED DESCRIPTION OF THE EMBODIMENTS**

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3 According to Figure 3 this device consists of a base
4 member 100, two end plates 200, a top securing rod 600 and a means
5 to attach this particular device to a tractor blade 720 50. Figure
6
7 1, 2 The tractor itself and the tractor blade 720 50 are not
8 claimed as part of this device. Figure 4
9
10

11 Angle clips or brackets 300 are attached to the inside
12 surface of the respective end plates 200 and lie flush with the
13 edge of the respective end plate 200. The angle clips 300 allow
14 this device to be secured in place and rest firmly against one side
15 of the tractor blade 720 while the device is in use. The angle
16 clips 300 are not attached to the tractor blade 720 when the device
17 is installed but are merely used to maintain the position of the
18 device relative to the tractor blade 720 to prevent titling or
19 swaying of the device while in operation. Figure 1, 3
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21

22 On the bottom of this device is a bottom removal securing rod
23 400, which is secured with a cotter pin 500 on both sides of the
24 device. {Figures 2, 4} The bottom removal securing rod 400 is
25 placed on the back surface 725 of ~~gives the device stability at~~
26 ~~the bottom surface of~~ the tractor blade 720 and secures the device
27 in place. Figure 4 rests against the bottom surface of the tractor
28 blade. The bottom securing rod 400 extends slightly more than
29 beyond the length of the device and holes are positioned at the
30 ends of the rod to install a cotter pin 500 at each end. Figure 1,
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1 A top bar 600 slips over the top of the tractor blade 720 and
2 hooks on the top edge or lip 705 of the tractor blade. Figure 4

3 The end plates 200, which are welded to the outside edges of
4 the base member 100, form the "bucket" or "scoop" of this
5 particular device when the device is installed. The end plates 200
6 extend vertically to slightly higher than the tractor blade 720.

7 When the device is installed, the length between the end plates 200
8 is slightly longer than the tractor blade 720 to complete the
9 "bucket".

10 A top rod 600 is used to connect the end plates 200 at the
11 top. The top rod 600 is inserted in the lip 705 of over the
12 tractor blade when the device is installed. Figure 4, 5 The
13 standard tractor blade 720 500 is equipped with a lip 705, which
14 allows the top rod 600 to be held securely in place during normal
15 operation. The top rod 600 is welded to the interior surface of
16 the end plates 200. Figure 5

17 Figure 1 depicts how the device will be mounted on a tractor
18 blade 720 with a sketch of a tractor on this drawing.

19 Figure 2 depicts the various parts of the device as seen from the
20 front. According to Figure 2 the tractor blade 720 would occupy
21 the space between the top bar 600 and the bottom securing rod 400.

22 The outside edges of the tractor blade (not shown) would rest
23 against the angle clips 300 and be secured by the top rod 600 and
24 the removable securing rod 400 and cotter pins 500. Figure 2, 4
25 Two sets of angle clips are contemplated per end plate as shown in
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1 Figures 2 and 3 to provide the required stability.

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3 Because the device is meant to be portable and easily removed,
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5 the device will be made of lightweight yet durable material.
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7 It is contemplated that because of the environments, which
8
9 will be encountered, that the device will be constructed from
10 metals and preferably steel or aluminum.
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12 **SECOND EMBODIMENT**

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14 The device may also be secured at the bottom by pins 700
15 instead of a removable securing rod 400 and cotter pins 500.
16

17 Figure 5 Other means of attachment, which do not involve a
18 bottom securing rod could also include nuts and bolts.
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21 In this embodiment the top lip 705 of the tractor blade 720 is
22 placed over the bar 600 of the device. The bottom surface 100 and
23 edges 200 are identical in this embodiment. Pins 700 are inserted
24 through holes 712, which have been provided so that the pin 700
25 will be positioned on the back surface 725 of the tractor blade
26 720. Figure 5 In the second embodiment the pins 700 take
27 the place of the removable securing rod 400 in the prior
28 embodiment.
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31 In the second embodiment the device operates in the same
32 manner but the means to secure the device at the bottom edge is
33 different.
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